

Type. Adult female. B.M. no. 20. 7. 6. 8. Original number 5884. Collected 11th May, 1917, by L. M. Dinelli.

Although undoubtedly very closely allied to *C. juris* of Jujuy, this tuco-tuco differs from it by so many little characters that it seems to deserve a special name. The rather larger but still allied species *C. latro* occurs between the two.

XXXI.—*On a Collection of Pycnogonida from the South Orkney Islands.* By W. T. CALMAN, D.Sc.

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THE Museum has recently received from Mr. A. G. Bennett a small collection of Pycnogonida dredged in shallow water at the South Orkney Islands. Among other specimens of interest it includes an example of the remarkable *Decolopoda antarctica*, hitherto known only by the single individual described fifteen years ago by Prof. Bouvier.

Decolopoda antarctica, Bouvier.

Colossendeis antarctica, Bouvier, Bull. Mus. Hist. Nat. Paris, xi. 1905, p. 295.

Decalopoda antarctica, Bouvier, C. R. Acad. Sci. cxlii. 1906, p. 17.

Decolopoda antarctica, Bouvier, "Pycnogonides du 'Français,'" Exped. Antarct. Franç. (1903-1905) 1906, p. 21, pl. i., pl. ii. figs. 1-5, text-figs. 1 & 2.

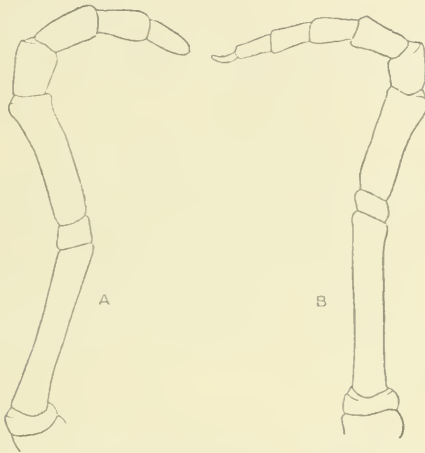
Locality.—Scotia Bay, South Orkneys; one female.

Remarks.—The specimen hardly differs in size from Bouvier's holotype (also a female), and, except as regards the palps, it agrees very closely with his description and figures. Bouvier states that the palps consist of eight segments, while those of *D. australis* consist of nine, excluding in both cases the basal prominence. In the present specimen the palp of the left side has eight segments and the terminal one is rounded at the tip and only a little more slender than the preceding. The right palp, however, has ten segments, and the terminal one is slender, curved, and claw-like. It may be assumed that this right palp is abnormal, possibly as a result of regeneration following injury; but I know of no other case of abnormality in this group in which the number of segments is greater than the normal.

The assumption of a claw-like form by the terminal segment may, perhaps, be regarded as a case of homœosis, since,

although no Pycnogonid has normally a claw on the palp, all the appendages posterior to it may end in claws.

I am unable to perceive any difference between this species and *D. australis* in the form of the female genital openings (cf. Bouvier, Pycnog. 'Pourquoi Pas,' 1913, p. 50).



Palps of *Decolopoda antarctica*. A, left; B, right.

Decolopoda antarctica was obtained by the 'Français' at Port Charcot, Booth Wandel Island, in latitude 65° S. Its discovery at about 61° S., in a locality where *D. australis* was previously taken by the 'Scotia,' shows that it is not, as Bouvier suggested, confined to higher latitudes than are reached by the last-named species.

Measurements in millimetres.—

Length of proboscis	17.75	
Greatest diameter of proboscis	4.5	
Length of trunk (including cephalon).....	12.5	
Width across second lateral processes	13.0	
Length of abdomen	7.0	
Length of first segment of left chelophore....	9.5	
Diameter of ditto at distal end.....	2.25	
Fourth left leg—		
Coxæ (together).....	11.5	
Femur	25.5	
First tibia	27.5	
Second tibia	33.25	
Tarsus	16.5	} 38.4
Propodus	12.0	
Claw	9.9	

Colossendeis robusta, Hoek.

Colossendeis robusta, Calman, "Pycnogonida," Brit. Antarct. ('Terra Nova') Exp., Zool. iii. no. 1, 1915, p. 24 (with references).

Locality.—Scotia Bay, South Orkneys; one female.

Remarks.—This specimen agrees closely with the male from the 'Terra Nova' collection, which it slightly exceeds in size; but the spinules on the legs, although present, are smaller and apparently fewer. The femur and the second tibia are of equal length.

Pentanympyon antarcticum, Hodgson.

Pentanympyon antarcticum, Calman, "Pycnogonida," Brit. Antarct. ('Terra Nova') Exp., Zool. iii. no. 1, 1915, p. 27 (with references).

Locality.—Scotia Bay, South Orkneys; two specimens.

Remarks.—The ratio between the width of the cephalon anteriorly and that of the neck is about 2.8 in these specimens, which in this respect do not differ from those recorded from the Ross Sea.

Nympyon orcadense (Hodgson).

Chatonympyon orcadense, Hodgson, Trans. Roy. Soc. Edinburgh, xlv. 1908, p. 173, pl. ii. figs. 2, 2a.

Locality.—S. Orkneys. Dredge. 6 fms. April 1915. Eight specimens (one ovigerous).

Remarks.—Hodgson records an "enormous number of specimens" of this species from Scotia Bay, and some of these, presented to the Museum by Dr. W. S. Bruce, show the closest agreement with Mr. Bennett's specimens.

Ammothea carolinensis, Leach.

Ammothea carolinensis, Calman, Ann. & Mag. Nat. Hist. (8) xv. 1915, p. 310, figs. 1-3 (with synonymy); id. "Pycnogonida," Brit. Antarct. ('Terra Nova') Exp., Zool. iii. no. 1, 1915, p. 51.

Locality.—Scotia Bay, South Orkneys; one female, one immature.

Remarks.—The female is of large size (proboscis 17.5 mm. long), and both specimens resemble very closely those already in the Museum from South Georgia which I have referred to *A. carolinensis*. Although the female is larger than the adult male of *A. gibbosa* figured by Bouvier (Pycnog.

'Pourquoi Pas,' 1913, p. 129, fig. 81), it does not show the enlargement of the dorsal processes of the trunk-somites which seems to be characteristic of full-grown specimens of the last-named species.

PROCEEDINGS OF LEARNED SOCIETIES.

GEOLOGICAL SOCIETY.

March 24th, 1920.—Mr. R. D. Oldham, F.R.S.,
President, in the Chair.

The following communications were read:—

1. 'On Two Preglacial Floras from Castle Eden (County Durham).' By Mrs. Eleanor M. Reid, B.Sc., F.L.S., F.G.S.

The seeds examined were obtained by Dr. C. T. Trechmann from Preglacial clays, found in fissures of the Magnesian Limestone at Castle Eden. The clays were carried by the Scandinavian ice from the area now covered by the North Sea.

The study proved the presence of two seed-bearing clays, of different ages, the earlier being undoubtedly Pliocene. The Pliocene age is confirmed by M. P. Lesne, who determined the insect-remains found intermingled with the seeds.

While the work was in progress, material from the base of the Pliocene of Pont de Gail (Cantal) gave knowledge, for the first time, of a seed flora of known age, low down in the Pliocene; it showed that the rate of change in the character of the West European Pliocene flora was slower than had been suggested by Clement Reid and the Author.

A critical comparison was made between the Cromerian, Teglian, Castle-Eden, Reuverian, and Pont-de-Gail floras, on the bases of the percentages of all exotics, and of Chinese-North American exotics (that is: plants now inhabiting the Far East of Asia or North America, but not Western Europe), in each flora. The result proved the Reuverian to be Lower Pliocene, not top of the Middle Pliocene (as formerly suggested); and the Castle-Eden flora to be Middle Pliocene.

Therefore a study of fossil seeds had made it possible to discriminate between strata intimately mixed *in situ*, and to determine their geological age when unknown.